

AMENDMENTS TO THE CLAIMS

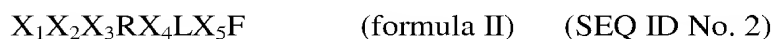
Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-15. (Cancelled)

16. (Currently Amended) A peptide consisting of the formula;



wherein X_1 , X_3 [[,]] and X_4 ~~and~~ X_5 -are each a natural or unnatural amino acid, [[and]] X_2 is serine or alanine and X_5 is selected from the group consisting of glycine, isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal).

17. (Cancelled)

18. (Withdrawn) A peptide according to claim 16, wherein X_1 and X_4 are both basic amino acid residues and X_3 is a basic or polar residue.

19. (Withdrawn) A peptide according to claim 18, wherein X_1 is histidine and X_4 is arginine, and X_3 is lysine or cysteine.

20. (Currently Amended) A peptide consisting of the formula;



wherein X_1 , X_3 [[,]] and X_4 ~~and X_5~~ are each a natural or unnatural amino acid, [[and]] X_2 is serine or alanine[[,]] and X_5 is selected from the group consisting of glycine, isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal), wherein

- (a) one amino acid residue is deleted;
- (b) one or more amino acid residues are substituted by the corresponding D-stereomer;
- (c) ~~the peptide is cyclic;~~
- (d) the final two residues at the C-terminal end are reversed; or
- ~~(e)~~(d) any combination of (a)-(d).

21. (Withdrawn – Currently Amended) A peptide consisting of the formula;



wherein X_5 is selected from the group consisting of glycine, isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal), and wherein:

- (a) X_1 is deleted or is a natural or unnatural amino acid,
- (b) X_2 is serine or alanine or a straight or branched chain amino acid,
- (c) X_3 is a basic amino acid or straight chain aliphatic amino acid,
- (d) R is unchanged or conservatively substituted by a basic amino acid,
- (e) X_4 is an amino acid that is capable of providing at least one site for participating in hydrogen bonding,
- (f) L is unchanged or conservatively substituted, or
- (g) ~~X_5 is a natural or unnatural amino acid, or~~
- (h) F is unchanged or substituted by an aromatic amino acid.

22. (Withdrawn – Currently Amended) A peptide consisting of the formula;



(SEQ ID No. 2),

wherein

- (a) X_1 is histidine, ~~deleted~~ or is a natural or unnatural amino acid residue,
- (b) X_2 is alanine or a natural or unnatural amino acid residue having an aromatic or aliphatic side chain,
- (c) X_3 is lysine, a basic residue, or an uncharged natural or unnatural amino acid residue,
- (d) arginine is replaced by a basic residue or an uncharged natural or unnatural amino acid residue,
- (e) X_4 is arginine or a natural or unnatural amino acid residue, ~~or an amino acid residue capable of forming a cyclic linkage,~~
- (f) leucine is replaced with a natural or unnatural amino acid residue having an aromatic or aliphatic side chain,
- (g) ~~X_5 is a natural or unnatural amino acid residue having an aromatic or aliphatic side chain,~~ X_5 is selected from the group consisting of isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal),
- (h) phenylalanine is replaced with a natural or unnatural amino acid, or
- (i) X_5 and the terminal phenylalanine residue are reversed, ~~or~~
- (j) ~~the peptide is in cyclic form by the formation of a linkage between the side chain of X_4 and the C terminus residue.~~

23. (Withdrawn) A peptide according to claim 16, wherein X_2 is alanine.

24. (Withdrawn) A peptide according to claim 16, wherein X_5 is isoleucine.

25. (Currently Amended) A peptide selected from the group consisting of:

H S K R R L I F (SEQ ID No. 34)

H A K R R L I F (SEQ ID No. 35)

H S K R R L F G (SEQ ID No. 36)

H A K R R L F G (SEQ ID No. 37)

K A C R R L F G (SEQ ID No. 38)

K A C R R L I F (SEQ ID No. 39)

	X1	X2	X3	R	X4	L	X5	F		
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 28)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 40)
	H-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 41)
H-	Pya-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 42)
H-	Thi-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 43)
H-	Hse-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 44)
H-	Phe-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 45)
H-	Dab-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 46)
H-	His-	Gly-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 47)
H-	His-	Abu-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 48)
H-	His-	Nva-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 49)
H-	His-	Bug-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 50)
H-	His-	Val-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 51)
H-	His-	Ile-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 52)
H-	His-	Phg-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 53)
H-	His-	Phe-	Lys-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 54)
H-	His-	Ala-	Ala-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 56)
H-	His-	Ala-	Nle-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 57)
H-	His-	Ala-	Abu-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 58)
H-	His-	Ala-	Leu-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 59)
H-	His-	Ala-	Arg-	Arg-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 60)
H-	His-	Ala-	Lys-	Ala-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 61)
H-	His-	Ala-	Lys-	Cit-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 62)
H-	His-	Ala-	Lys-	Hse-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 63)
H-	His-	Ala-	Lys-	His-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 64)
H-	His-	Ala-	Lys-	Nle-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 65)
H-	His-	Ala-	Lys-	Gln-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 66)
H-	His-	Ala-	Lys-	Lys-	Arg-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 67)
H-	His-	Ala-	Lys-	Arg-	Ala-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 68)
H-	His-	Ala-	Lys-	Arg-	Asn-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 69)
H-	His-	Ala-	Lys-	Arg-	Pro-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 70)
H-	His-	Ala-	Lys-	Arg-	Ser-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 71)
H-	His-	Ala-	Lys-	Arg-	Aib-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 72)
H-	His-	Ala-	Lys-	Arg-	Sar-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 73)
H-	His-	Ala-	Lys-	Arg-	Cit-	Leu-	Ile-	Phe	-NH2	(SEQ ID No. 74)

H-	His-	Ala-	Lys-	Arg-	Arg-	Ala-	Ile-	Phe	-NH2 (SEQ ID No. 76)
H-	His-	Ala-	Lys-	Arg-	Arg-	Ileu-	Ile-	Phe	-NH2 (SEQ ID No. 77)
H-	His-	Ala-	Lys-	Arg-	Arg-	Ile-	Ile-	Phe	-NH2 (SEQ ID No. 78)
H-	His-	Ala-	Lys-	Arg-	Arg-	Val-	Ile-	Phe	-NH2 (SEQ ID No. 79)
H-	His-	Ala-	Lys-	Arg-	Arg-	Nle-	Ile-	Phe	-NH2 (SEQ ID No. 80)
H-	His-	Ala-	Lys-	Arg-	Arg-	Nva-	Ile-	Phe	-NH2 (SEQ ID No. 81)
H-	His-	Ala-	Lys-	Arg-	Arg-	Cha-	Ile-	Phe	-NH2 (SEQ ID No. 82)
H-	His-	Ala-	Lys-	Arg-	Arg-	Phe-	Ile-	Phe	-NH2 (SEQ ID No. 83)
H-	His-	Ala-	Lys-	Arg-	Arg-	1Nap-	Ile-	Phe	-NH2 (SEQ ID No. 84)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ala-	Phe	-NH2 (SEQ ID No. 85)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Leu-	Phe	-NH2 (SEQ ID No. 86)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Val-	Phe	-NH2 (SEQ ID No. 87)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Nle-	Phe	-NH2 (SEQ ID No. 88)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Nva-	Phe	-NH2 (SEQ ID No. 89)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Cha-	Phe	-NH2 (SEQ ID No. 90)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Phe-	Phe	-NH2 (SEQ ID No. 91)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	1Nap-	Phe	-NH2 (SEQ ID No. 92)
	H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Phe	-NH2 (SEQ ID No. 93)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Leu	-NH2 (SEQ ID No. 95)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Cha	-NH2 (SEQ ID No. 96)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Hof	-NH2 (SEQ ID No. 97)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Tyr	-NH2 (SEQ ID No. 98)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 99)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	mFPhe	-NH2 (SEQ ID No. 100)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Trp	-NH2 (SEQ ID No. 101)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	1Nap	-NH2 (SEQ ID No. 102)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	2Nap	-NH2 (SEQ ID No. 103)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Lys	-NH2 (SEQ ID No. 104)
H-	His-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Tic	-NH2 (SEQ ID No. 105)
H-	His	Ala	Lys	Arg	Arg	Leu	Ile	L-Pse	OH (SEQ ID No. 106)
H-	His	Ala	Lys	Arg	Arg	Leu	Ile	D-Pse	OH (SEQ ID No. 107)
H-	His	Ser	Lys	Arg	Arg	Leu	Ile	L-Pse	OH (SEQ ID No. 108)
H-	His	Ser	Lys	Arg	Arg	Leu	Ile	D-Pse	OH (SEQ ID No. 109)
H-	His	Ala	Lys	Arg	Arg	Leu	Ile	L-Psa	OH (SEQ ID No. 110)
H-	His	Ala	Lys	Arg	Arg	Leu	Ile	D-Psa	OH (SEQ ID No. 111)
H-	His	Ser	Lys	Arg	Arg	Leu	Ile	L-Psa	OH (SEQ ID No. 112)
H-	His	Ser	Lys	Arg	Arg	Leu	Ile	D-Psa	OH (SEQ ID No. 113)
H-	His	Ala	Lys	Arg	Arg	Leu	Ile	Dhp	OH (SEQ ID No. 114)
H-	His	Ser	Lys	Arg	Arg	Leu	Ile	Dhp	OH (SEQ ID No. 115)
H-	His	Ala	Lys	Arg	Arg	Leu	Ile	Pheol	(SEQ ID No. 116)
H-	His	Ser	Lys	Arg	Arg	Leu	Ile	Pheol	(SEQ ID No. 117)
H-	Ala-	Ala-	Abu-	Arg-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 118)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 119)
H-	Ala-	Ala-	Lys-	Arg-	Cit-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 120)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ala-	pFPhe	-NH2 (SEQ ID No. 121)
H-	Ala-	Ala-	Abu-	Arg-	Ser-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 122)
H-	Ala-	Ala-	Lys-	Gln-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 123)

H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 124)
H-	Gly-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 125)
H-	Ala-	Ala-	Lys-	hArg-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 126)
H-	Ala-	Ala-	Lys-	Ser-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 127)
H-	Ala-	Ala-	Lys-	Hse-	Arg-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 128)
H-	Ala-	Ala-	Lys-	Arg-	Lys-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 129)
H-	Ala-	Ala-	Lys-	Arg-	Orn-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 130)
H-	Ala-	Ala-	Lys-	Arg-	Gln-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 131)
H-	Ala-	Ala-	Lys-	Arg-	Hse-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 132)
H-	Ala-	Ala-	Lys-	Arg-	Thr-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 133)
H-	Ala-	Ala-	Lys-	Arg-	Nva-	Leu-	Ile-	pFPhe	-NH2 (SEQ ID No. 134)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Phg-	Ile-	pFPhe	-NH2 (SEQ ID No. 135)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Met-	Ile-	pFPhe	-NH2 (SEQ ID No. 136)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Ala-	Ile-	pFPhe	-NH2 (SEQ ID No. 137)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Hof-	Ile-	pFPhe	-NH2 (SEQ ID No. 138)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	hLeu-	Ile-	pFPhe	-NH2 (SEQ ID No. 139)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	alle-	Ile-	pFPhe	-NH2 (SEQ ID No. 140)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Gly-	pFPhe	-NH2 (SEQ ID No. 141)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	β Ala	pFPhe	-NH2 (SEQ ID No. 142)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Phg-	pFPhe	-NH2 (SEQ ID No. 143)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Aib-	pFPhe	-NH2 (SEQ ID No. 144)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Sar-	pFPhe	-NH2 (SEQ ID No. 145)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Pro-	pFPhe	-NH2 (SEQ ID No. 146)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Bug-	pFPhe	-NH2 (SEQ ID No. 147)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ser-	pFPhe	-NH2 (SEQ ID No. 148)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Asp-	pFPhe	-NH2 (SEQ ID No. 149)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Asn-	pFPhe	-NH2 (SEQ ID No. 150)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	pFPhe-	Phe	-NH2 (SEQ ID No. 151)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	diClPhe	Phe	-NH2 (SEQ ID No. 152)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	pClPhe-	Phe	-NH2 (SEQ ID No. 153)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	mClPhe	Phe	-NH2 (SEQ ID No. 154)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	oClPhe-	Phe	-NH2 (SEQ ID No. 155)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	pIPhe-	Phe	-NH2 (SEQ ID No. 156)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	TyrMe-	Phe	-NH2 (SEQ ID No. 157)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Thi-	Phe	-NH2 (SEQ ID No. 158)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Pya-	Phe	-NH2 (SEQ ID No. 159)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	diClPhe	-NH2 (SEQ ID No. 160)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	pClPhe	-NH2 (SEQ ID No. 161)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	mClPhe	-NH2 (SEQ ID No. 162)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	oClPhe	-NH2 (SEQ ID No. 163)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Phg	-NH2 (SEQ ID No. 164)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	TyrMe	-NH2 (SEQ ID No. 165)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Thi	-NH2 (SEQ ID No. 166)
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Pya	-NH2 (SEQ ID No. 167) <u>and</u>
H-	Ala-	Ala-	Lys-	Arg-	Arg-	Leu-	Ile-	Inc	-NH2 (SEQ ID No. 168)

~~and the cyclic peptides:~~

~~5,8 cyclo [H His Ala Lys Arg Lys Leu Phe Gly] (SEQ ID No. 169)~~

~~5,8 cyclo [H His Ala Lys Arg Orn Leu Phe Gly] (SEQ ID No. 170)~~

26-35. (Cancelled)

36. (Withdrawn – Currently Amended) An assay for the identification of compounds that interact with a cyclin or a cyclin when complexed with the physiologically relevant CDK, comprising;

(a) incubating a candidate compound, a cyclin or cyclin/CDK complex and a peptide consisting of formula II

$X_1X_2X_3RX_4LX_5F$ (SEQ ID No. 2)

wherein X_1 , X_3 [[,]] and X_4 ~~and~~ X_5 -are each a natural or unnatural amino acid, [[and]]

X_2 is serine or alanine[[,]] and X_5 is selected from the group consisting of glycine, isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal) ~~a cyclin or cyclin/CDK complex;~~

(b) detecting binding of either the candidate compound or the peptide of formula II with cyclin.

37-40. (Cancelled)

41. (Withdrawn) An assay according to claim 36, wherein the cyclin is selected from cyclin A, cyclin E or cyclin D.

42. (Withdrawn) An assay according to claim 41 wherein the cyclin is cyclin A.

43. (Cancelled)

44. (Withdrawn) An assay according to claim 36, wherein at least one of the assay components is bound to a solid phase.

45. (Withdrawn) An assay according to claim 44, wherein the p21 derived peptide is labeled such as to emit a signal when bound to said cyclin.

46. (Withdrawn) An assay according to claim 44, wherein the cyclin is labeled such as to emit a signal when bound to the p21 derived peptide.

47. (Withdrawn) An assay according to claim 45, wherein one of the assay components is labeled with a fluorescence emitter and the signal is detected using fluorescence polarisation techniques.

48-54. (Cancelled)

55. (Withdrawn) A peptide according to claim 22, wherein X_1 is selected from the group consisting of histidine, alanine, 3-pyraldylalanine (Pya), 2-thienylalanine (Thi), homoserine (Hse), phenylalanine and diaminobutyric acid (Dab).

56. (Withdrawn) A peptide according to claim 22, wherein X_2 is selected from the group consisting of alanine, glycine, aminobutyric acid (Abu), norvaline (Nva), t-butylglycine (Bug), valine, phenylglycine (Phg) and phenylalanine.

57. (Withdrawn) A peptide according to claim 22, wherein X_3 is selected from the group consisting of lysine, arginine, norleucine (Nle), aminobutyric acid (Abu) and leucine.

58. (Withdrawn) A peptide according to claim 22, wherein arginine is replaced by lysine, citrulline (Cit), homoserine, histidine, norleucine (Nle) or glutamine.

59. (Withdrawn) A peptide according to claim 22, wherein X_4 is selected from the group consisting of arginine, asparagines, praline, serine, aminoisobutyric acid (Aib), sarcosine, lysine and ornithine.

60. (Withdrawn) A peptide according to claim 22, wherein leucine is replaced by norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine or 1-naphthylalanine (1Nal).

61. (Cancelled)

62. (Withdrawn – Currently Amended) A peptide according to claim 22, wherein phenylalanine is replaced by leucine, cyclohexylalanine (Cha), homophenylalanine (Hof), tyrosine, para-fluorophenylalanine (pFPhe), meta-fluorophenylalanine (mFPhe), tryptophan, i-naphthylalanine (1Nal), 2-naphthylalanine (2Nal), biphenylalanine (Bip) or 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid (Tic).

63. (Withdrawn) The peptide of claim 20, wherein one amino acid residue is deleted.

64. (Withdrawn) The peptide of claim 20, wherein one or more natural amino acid residue is substituted by the corresponding D-stereomer.

65. (Cancelled)

66. (Previously Presented) The peptide of claim 20, wherein the final two residues at the C-terminal end are reversed.

67. (Withdrawn) The peptide of claim 21, wherein X_1 is deleted or is a natural or unnatural amino acid.

68. (Withdrawn) The peptide of claim 21, wherein X_2 is serine or alanine or a straight or branched chain amino acid.

69. (Withdrawn) The peptide of claim 21, wherein X_3 is a basic amino acid or straight chain aliphatic amino acid.

70. (Withdrawn) The peptide of claim 21, wherein R is unchanged or conservatively substituted by a basic amino acid.

71. (Withdrawn) The peptide of claim 21, wherein X_4 is an amino acid that is capable of providing at least one site for participating in hydrogen bonding.

72. (Withdrawn) The peptide of claim 21, wherein L is unchanged or conservatively substituted.

73. (Cancelled)

74. (Withdrawn) The peptide of claim 21, wherein F is unchanged or substituted by an aromatic amino acid.

75. (Withdrawn) The peptide of claim 22, wherein X₁ is deleted or is a natural or unnatural amino acid residue.

76. (Withdrawn) The peptide of claim 22, wherein X₂ is a natural or unnatural amino acid residue having an aromatic or aliphatic side chain.

77. (Withdrawn) The peptide of claim 22, wherein X₃ is a basic residue, or an uncharged natural or unnatural amino acid residue.

78. (Withdrawn) The peptide of claim 22, wherein arginine is replaced by a basic residue or an uncharged natural or unnatural amino acid residue.

79. (Withdrawn – Currently Amended) The peptide of claim 22, wherein X₄ is a natural or unnatural amino acid residue, ~~or an amino acid residue capable of forming a cyclic linkage.~~

80. (Withdrawn) The peptide of claim 22, wherein leucine is replaced with a natural or unnatural amino acid residue having an aromatic or aliphatic side chain.

81. (Cancelled)

82. (Withdrawn) The peptide of claim 22, wherein phenylalanine is replaced with a natural or unnatural amino acid.

83. **(Withdrawn)** The peptide of claim 22, wherein X_5 and the terminal phenylalanine residue are reversed.

84. **(Cancelled)**

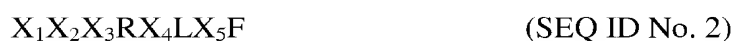
85. **(New)** A peptide consisting of the formula;



wherein X_5 is selected from the group consisting of glycine, isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal), and wherein:

- (a) X_1 is deleted or is a natural or unnatural amino acid,
- (b) X_2 is serine or alanine or a straight or branched chain amino acid,
- (c) X_3 is a basic amino acid or straight chain aliphatic amino acid,
- (d) R is unchanged or conservatively substituted by a basic amino acid,
- (e) X_4 is an amino acid that is capable of providing at least one site for participating in hydrogen bonding,
- (f) L is unchanged or conservatively substituted, or
- (g) phenylalanine is replaced by leucine, cyclohexylalanine (Cha), homophenylalanine (Hof), tyrosine, para-fluorophenylalanine (pFPhe), meta-fluorophenylalanine (mFPhe), tryptophan, i-naphthylalanine (1Nal), 2-naphthylalanine (2Nal), biphenylalanine (Bip) or 1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid (Tic).

86. **(New)** A peptide consisting of the formula;



wherein X_5 is selected from the group consisting of glycine, isoleucine, norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine and 1-naphthylalanine (1Nal), and wherein:

- (a) X_1 is deleted or is a natural or unnatural amino acid,
- (b) X_2 is selected from alanine, glycine, amino butyric acid (Abu), norvaline (Nva), t-butylglycine (Bug), valine, isoleucine, phenylglycine (Phg) or phenylalanine,
- (c) X_3 is a basic amino acid or straight chain aliphatic amino acid,
- (d) R is unchanged or conservatively substituted by a basic amino acid,
- (e) X_4 is an amino acid that is capable of providing at least one site for participating in hydrogen bonding,
- (f) L is unchanged or conservatively substituted, or
- (g) F is unchanged or substituted by an aromatic amino acid.

87. **(New)** The peptide of claim 21, wherein the arginine is replaced by lysine, citrulline (Cit), homoserine, histidine, norleucine (Nle) or glutamine.

88. **(New)** The peptide of claim 21, wherein the leucine is replaced by norleucine, norvaline, cyclohexylalanine (Cha), phenylalanine or 1-naphthylalanine (1Nal).